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THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:) Before the Board
Stephen T. Garelli) of Appeals
Filed: January 17, 2002) Brief for the Appellant
Serial Number: 10/051,200)
Title: METHOD AND MOLD FOR)
MOLDING FLEXIBLE)
POLYMERIC ENVELOPES)
Attorney Docket: MSH - 206) November 13, 2004

BRIEF ON APPEAL

This is an appeal from the Office Action dated June 16, 2004, rejecting claims 3 to 8 in the application. A Notice of Appeal was timely filed on September 16, 2004 and the fee was timely paid.

The Commissioner is hereby Authorized to charge Deposit Charge Account 13-2492 the fee of \$170.00 for the Brief. This Brief is filed in triplicate.

Appellant is a small entity.

REAL PARTY IN INTEREST

Speciality Silicone Fabricators Inc., the employer of the inventor herein, is the real party in interest.

RELATED APPEALS AND INTERFERENCES

To the best of Appellant's knowledge, there are no appeals or interferences related to the present one which are likely to directly affect or be directly affected by the Board's decision in the pending appeal.

STATUS OF THE CLAIMS

Claims 3 to 8, all the claims in the case, are the claims on appeal.

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STATUS OF AMENDMENTS

The amendments in the previous Office Action response have been entered by the Examiner and are incorporated in the claims being appealed. No further amendments have been offered or allowed. The claims are attached to this Brief as Appendix "A".

SUMMARY OF THE INVENTION

The invention comprises a method of molding flexible polymeric envelopes from a unique mold and the products molded therefrom. The essence of this method is the ability to injection mold the polymeric envelopes, cure or dry them on the mold core, and in spite of the small opening left by the molding process as compared to the size of the large core of the mold, eject the molded product without splitting or tearing the product in the process of demolding, using gas injection to expand the molded product for the demolding step.

ISSUES

Issue 1

Are claims 3 and 5 to 8 rejectable under 35U.S.C. §103(a) as being obvious from Milner in view of Cole and therefore unpatentable?

Issue 2

Is claim 4 rejectable under 35 U.S.C. §103(a) as being obvious from Milner in view of Cole, and further in view of Takahashi, as applied to claims 3 and 5 to 8 and therefore unpatentable?

GROUPS OF THE CLAIMS

All of the claims stand or fall together.

THE REFERENCES

Milner	2,304,190
Cole	4,541,795
Takahashi	5,089,201

ARGUMENTS FOR THE APPELLANT

Issue 1

Are claims 3 and 5 to 8 rejectable under 35U.S.C. §103(a) as being obvious from Milner in view of Cole and therefore unpatentable?

The Examiner has rejected claim 3 and 5 to 8 under 35 U.S.C. §103(a) as being obvious from Milner in view of Cole, the Examiner outlining the various parts and components of Milner and comparing them to the various parts and components of the instant claims.

The Milner reference deals with a process for molding. However, the process is very clearly not injection molding, it is compression molding, which differs significantly from injection molding. It follows then that the apparatus that is used would differ significantly, but moreover, the process would also differ significantly.

Injection molding in the case of the instant invention is for molding thin walled elastomeric materials and such a type of molding does not require compression to accomplish the molding. Since the Milner patent issued in 1942, which is clearly prior to the era of the existence of room temperature curable elastomeric materials, the patentee therein could not have envisioned the injection molding of such materials, and therefore, could not have, and did not, supply any information with regard to such a process.

The process of Milner, as was recognized the Examiner, does not deal with the injection of any type of material. With regard to the disclosure of Milner at column 2, of page 2, beginning at line 25, and continuing, the patentee discloses the placing of rubber stock on the top of the core, closing the mold, heating the mold to semi-cure (light semi-cure, lines 47-48) the rubber stock, cutting the spew lines thus formed (and incidentally, forming the plug that is required to seal the ball), and removing the ball from the core. Presumably, the ball must be removed in the semi-cured state so that the thick rubber walls will move around the core for ready removal from the core.

In the instant process, there is no placing of rubber stock into a mold that is open as in Milner. The mold is closed in the instant invention before the stock is injected into the cavity. Further, there is no compression of the stock, and no heating is required for the instant invention, and therefore, there is no need for a Milner type of apparatus containing the complex heating arrangement for such a cure. Still further, the product that is removed in the process of the instant invention is fully cured and it is in this fully cured state that the product is removed from the core. Yet further, the process of the invention provides thin walled products that would not be possible with the Milner process, and finally, the process of the instant invention provides product in a much faster production

time because of the fact that all of the extraneous steps of Milner do not have to be performed.

Now, the Examiner states that Cole supplies the information that is not found in Milner, namely, "Milner fails to teach liquid injected via upper mold opening and texturing of the product by the surfaces.", and, "Cole teaches an injection molding apparatus having a mold cavity (101), where material is injected into the mold via channel (133) through the upper mold (103). Air is injected to the lower mold via channel (191) for ejection of the product from the cavity."

The Examiner has misinterpreted Cole for what it actually teaches, and therefore, it does not compliment Milner in that regard and is therefore improperly coupled with Milner under 35 USC §103.

Cole deals with a mold and a molding method for forming a closure device having a cap portion, a cylindrical plug portion extending therefrom, and a cylindrical collar extending substantially coextensively and coaxially with the plug portion spaced therefrom.

Appellant would first point out to the Board that the product of the molding process of Cole does not resemble the configuration of the products of the instant invention, and for that matter, of the Milner process either. A careful reading of Cole shows that the apparatus of Cole is a multi-component molding apparatus containing many interrelating parts, and that many excessive mechanical means are required to move the multi-component mold pieces so that the complicated product can be removed from the mold, and that the air ejection of the product at the end of the Cole process does not balloon the product as is the case in the instant invention, but instead, just uses a point force of air (a burst of air) to dislodge the product so that it can be extracted by some other means from the mold, using for example, mechanical means. See cf. column 3, lines 1 to 6 in conjunction with the teaching at column 8, lines 9 to 14 of Cole, and cf. column 9, lines 3 to 24 for the complexity of mechanical parts and the complexity of the movement of them to remove the product from the mold.

In addition, it is clear that the Cole reference deals with thermoplastic injection molding, which is dissimilar to the elastomeric injection molding of the instant invention.

Thus, Cole does not support Milner and the combination of these two references is not permissible as a basis for rejection of the instant claims under 35 USC §103.

Issue 2

Is claim 4 rejectable under 35 U.S.C. §103(a) as being obvious from Milner in view of Cole, and further in view of Takahashi, as applied to claims 3 and 5 to 8 and therefore unpatentable?

The rejection of claim 4 under 35 USC §103(a) as being unpatentable over Milner in view of Cole as applied to claims 2, 3 and 5 to 8 above, and further in view of Takahashi, U.S. Patent 5,089,201 is without foundation and should be reversed.

Takahashi merely teaches the use of injectable, curable silicone material and does not teach that it can be used in a process as set forth in the instant invention. Nothing in Takahashi discloses, teaches, implies or otherwise directs one to the use of curable silicone material in the particular process of the instant invention.

RELIEF REQUESTED

Based on the above arguments for the Appellant, the Appellant requests the Board to reverse the Examiner on all of the rejections.

Respectfully submitted,



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Status of Claims

3. A solid molded product when produced by the process of claim 8.
4. The solid molded product of claim 3 wherein the solid molded product is made from curable silicone materials.
5. The solid molded product of claim 4 wherein the outside surface is textured.
6. The solid molded product of claim 4 wherein the inside surface is textured.
7. The solid molded product of claim 4 wherein both the inside and outside surfaces are textured.
8. A method of molding, the method comprising:
 - (I) providing a molding machine containing a mold, wherein the mold comprises:
 - (A) an upper mold segment having an upper surface;
 - (B) a lower mold segment having a bottom surface, and
 - (C) a moveable core having a top surface, a bottom surface and a centered opening therethrough, said opening having a near end and a distal end; wherein each mold segment has a confronting flat surface, each mold segment being capable of mating with the other mold segment at their respective confronting flat surfaces; there being located in the confronting flat surface of each segment, a concavity, each concavity having an opening centered in said concavity; the opening in the concavity of the lower mold segment running through the lower mold segment and exiting through the bottom surface of the lower mold segment; the opening in the concavity of the upper mold segment running through the upper mold segment and exiting through the upper surface of the upper mold segment; the moveable core having an outside configuration essentially identical to the concavities when the mold segments are mated with each other, the core having integrally attached to the bottom thereof, a stem, said stem being slidably mounted in the opening in the

concavity of the lower mold segment and extending beyond the bottom surface of the lower mold segment, said stem having centered therethrough, an opening; the centered opening in the core having an air valve located in and near the near end thereof, said centered opening in the core and said centered opening in the stem being interconnected to allow the intermittent passage of gas therethrough, there being a space created between the outside configuration of the core and the concavities when the mold segments are mated;

(II) providing a clamping force on the mold;

(III) injecting liquid moldable material into the upper mold segment via the upper mold segment opening and allowing the liquid moldable material to fill the space created between the outside configuration of the core and the concavities;

(IV) allowing the liquid moldable material to become a solid molded product;

(V) removing the clamping force on the mold and separating the upper mold segment and the lower mold segment and thereafter, moving the core from the lower mold segment;

(VI) thereafter, injecting gas into the centered opening in the stem, thereby opening the gas valve in the near end of the centered opening in the core, and allowing the solid molded product to be inflated by the injected gas until the solid molded product is released from the core and thereafter, removing the solid molded product from the mold.

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